

ABSTRACT

Two problems seen in CMP as currently executed are a tendency for slurry particles to remain on the surface and the formation of a final layer of oxide. These problems have been solved by adding to the slurry a quantity of TMAH or TBAH. This has the effect of rendering the surface being polished hydrophobic. In that state a residual layer of oxide will not be left on the surface at the conclusion of CMP. Nor will many slurry abrasive particles remain cling to the freshly polished surface. Those that do are readily removed by a simple rinse or buffing. As an alternative, the CMP process may be performed in three stages — first convention CMP, then polishing in a solution of TMAH or TBAH, and finally a gentle rinse or buffing.